## Monitoring outdoor recreation trends in Sweden

Peter Fredman, Mid-Sweden University, Sweden, peter.fredman@miun.se; Anders Lindhagen, Swedish University of Agricultural Sciences, Sweden; Göran Nordström, Statistics Sweden

## Introduction

This paper provides an overview of outdoor recreation trends in Sweden to facilitate a discussion on outdoor recreation demand and supply prognostics, potentials for cross-country comparisons and future data needs. The Nordic countries are globally well known for their outdoor recreation opportunities. Participation has historically been associated with the Nordic "friluftsliv" tradition, but more recently there are indications of changing recreation behaviors indicative of broader societal changes (Emmelin et al, 2010; Fredman, et al., 2012; Odden, 2008; Sandell et al., 2011). These include, e.g. more diverse participation patterns, less participation among youth, increasing demand for facilities, motors and adventurous activities, as well as growing socio-demographic differences. Fluctuations in participation rates reflects broader changes in society such as urbanization, globalization and technical developments, but also more specific factors like localized climate change, accessibility and resource management actions.

Data for this presentation include national statistics, regional and thematic population surveys and on site visitor monitoring studies. While such data are often not designed to provide guidance for determining micro-level supply needs, information on outdoor recreation participation is an important input to resource managers, recreation planners and market analysts. Since units of measurement and methodology are seldom harmonized, it is argued that an integrated data collection program, including different spatial levels, needs to be implemented in Sweden.

In December 2010 the Swedish parliament voted for the government bill 'The Future of Outdoor Recreation' (Swedish Government Bill 2009/10:238) followed by a process where measurable goals were developed. One conclusion from this work was a call for both scientific research and high quality data in order to implement and evaluate a policy serving the need of the general public. A program for outdoor recreation monitoring which address vertical integration through spatial aggregation including; a longitudinal national survey (with rotational thematic modules), oversampling of certain regions on a rotational basis, and on-site surveys on a local level has been proposed. This presentation is based on a chapter from a forthcoming publication by the Swedish Outdoor Recreation in Change research program, www.friluftsforskning.se (Fredman et al., 2013).

## Observations

The general trends observed from national data on outdoor recreation collected by Statistics Sweden are quite modest in terms of change (Table 1). The proportion of the population that reports hiking in a forest at least once a year has been within the 70–80% interval since the late 1970s. There is a small decrease in angling in the 2006/07 survey

compared with previous years, while physical exercise has increased from 46% in 1980/81 to 74% in 2010. Looking at visitation to the Swedish mountain region, which covers approximately one third of the land area, we find large increases in alpine skiing and snowmobiling, while more traditional activities such as hiking, backpacking and crosscountry skiing have been quite stable comparing the early 1980s with the late 1990s. Although mountain tourism has increased in volume, we can observe a decrease in more frequent visitors, and the growth is primarily due to more winter tourism in the southern parts of the region. In forest recreation we identify overall small changes in participation between 1977 and 1997. Extending the view to 2011, there is a decrease in berry picking while picking mushrooms has increased in popularity more recently. Regarding hunting there are fewer hunters registered but more hunting days comparing the 1986/87 hunting season with the 2005/06 season. There has also been an increase in the hunting value over this period.

Considering trends observed from on-site studies we find some more pronounced changes. With one exception, there have been decreases in participation, primarily in urban proximate forest areas looking 20-30 years back in time. Forests in the proximity of Uppsala for example, a university town just north of Stockholm, feature more than 40% reduction in visitation during the last ten years. The exception, where a significant increase was observed, is Fulufjället National Park in the southern mountain region. This increase is a short term effect following from the designation of the National Park in 2002. Two general trends observed in several of the on-site studies are a decrease in the number of young people and an increase in physical activities. Visitors to more peripheral areas seem to have become more 'urbanistic', but are also increasingly looking for 'adventures'.

## Concluding remarks

To our knowledge, the figures presented above represent the best available data on outdoor recreation trends in Sweden. So what are then the main trends and future prospects in this sector? Unfortunately, the answer to that question will to a large extent remain unanswered. It is obvious that official statistics indicate no dramatic changes the last 40 years when looking at the total population. We need to go beyond the total numbers, considering changes among specific demographic and socioeconomic groups to find the critical figures. We also need to consider the regional levels more carefully. Looking at the mountains, we find recreation increasingly becoming mechanized, but what happened to the backpackers and hikers? Maybe they are to be found elsewhere in the world, or substituted with international visitors not included in our survey designs, or perhaps they lost their interest to participate? With the same logic, pe-

Study / Area	Method	Study period	Trends	Comments
		National population st	udies	
Statistics Sweden	Personal interviews, from 2006 telephone interviews	1976*; 1980/81; 1982/83*; 1988/89; 1990-91*; 1996/97; 1998/99*; 2006/07*; 2008/09; 2010	No change, increase in physical exercise	Change in method
Swedish mountain tourism	Telephone interviews + mailed survey	1980-85; 1995-00	Increase in alpine skiing and snowmobiling, Small changes in hiking and XC skiing.	Less frequent visitors. Increase in southern mountain region.
Forest recreation	Mailed surveys	1977; 1997; 2011	Small changes 1977- 97. Decreased berry picking, increased mushroom picking	Freq question changed 2011
Hunting	Mailed surveys	1986/87; 2005/06	Fewer registered hunters but more hunting days.	Increased hunting value Small spatial changes.
		On-site studies		
Norrbotten mountains (Laponia WHS)	Survey in huts	1980; 2003		Shorter visits. Older and more "urbanistic" visitors. More adventure
Rogen, Långfjället Nature Reserve	Registration boxes + mailed survey	1988; 1998	Less hikers	Shorter visits.
Fulufjället National Park	* mailed survey	2001; 2003	Increase 40%	Designation effect. Shorter visits. Older visitors.
North Djurgården	Observations	1977; 1989; 1996	Decrease 35 %	Increase of children in groups
Bogesundslandet	Observations (cars)	1968/69; 1981; 2001	Decrease 30% <u>or</u> no change.	Increase weekdays, decrease weekends. Increase physical activities and golf.
Uppsala (Stadsskogen)	Observations	1988; 1995; 1999; 2007	Decrease 22 %	Increase children in groups
Uppsala (Värdsätraskogen)	Observations	1993; 1998; 2000; 2007	Decrease 44 %	Decrease children. Increase physical activity.
Uppsala (Näntunaskogen)	Observations	1997; 2007	Decrease 42 %	Decrease children. Increase physical activity.

Table 1. Observed trends in outdoor recreation participation in Sweden

\* Special focus on "leisure".

ople that previously used to recreate in the urban proximate forests may have displaced to the golf courses, ski slopes or theme parks. How do we understand and explain the paradox of increasing demand for both services and adventures in mountain recreation?

To answer such questions we need to go beyond single surveys and collect data much more systematic and comprehensive than previously has been the case in Sweden. Data collected single years for longitudinal comparisons are sensitive to annual fluctuations and extremes. The framing of questions often changes from one survey to the next. Decreasing response rates over time is yet another methodological problem. And how can we take advantage of new technology in visitor monitoring? These are among the topics to be discussed in this presentation.

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